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SOUTHEASTERN COOPERATIVE WILDLIFE DISEASE STUDY



PARASITOLOGY  
COLLEGE OF VETERINARY MEDICINE  
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December 4, 1991

Mr. S. Ray Aycock  
U.S. Fish and Wildlife Service  
300 Woodrow Wilson Avenue  
Suite 316  
Jackson, Mississippi 39213

Dear Ray:

This is to report our findings on deer herd health checks conducted in Mississippi on Noxubee National Wildlife Refuge, Noxubee County, Hillside National Wildlife Refuge, Holmes County, and Panther Swamp National Wildlife Refuge, Yazoo County between July 10 and July 24, 1991. The health checks involved examination of five deer from each area. The data for each area are arranged into a series of tables (parasitologic, serologic, and pathologic) and are accompanied by interpretive comments.

As is evident from our comments, none of the herds had significant health problems, and we did not encounter any overtly diseased animals on any of the refuges. However, our APC and other herd health data suggest that the herds on Noxubee and Hillside are at the upper limit of or possibly in excess of nutritional carrying capacity. Although herd health on these two refuges does not appear to be significantly compromised at the present time, continuation of current density likely will lead to increased lungworm problems and other declines in herd health. Therefore, we recommend that density of these two herds be controlled and that consideration be given to slight reductions in current deer densities. Our experience has been that APC values become elevated in advance of detectable changes in other condition indicators (weights, antler development, reproductive rates, etc).

Data for the Panther Swamp herd suggests it is near nutritional carrying capacity and that this herd can be maintained near its present density without undue risk of disease related mortality. Any significant increase in herd density on this area, however, could result in declines in herd health and increases in the levels of lungworms and other pathogenic parasites that are already present.

All three refuges have serologic evidence of activity by hemorrhagic disease viruses. These findings suggest the potential for future viral activity and the possibility of mortality from hemorrhagic disease.

Mr. S. Ray Aycok  
Page 2  
December 4, 1991

Although this viral disease is not always directly related to herd density because of the influence of weather, abundance of biting midge vectors, and other factors, maintenance of herd density within nutritional carrying capacity also will help somewhat in minimizing losses to this disease.

We trust that this information will be of value in management of these deer herds. Detailed information on the parasites and diseases covered in these reports can be obtained from the text Diseases and Parasites of White-tailed Deer. In particular, we would refer you to pages 413-423 for an explanation of the relationships between deer density, nutrition, and disease. The attached flier also has an elementary explanation of the basics of deer herd health. If you have any questions about these reports or if we can be of assistance on other matters, please do not hesitate to contact us. Our report on the Oak Grove Swamp Wildlife Management Area will be completed within the near future.

Best regards,

Sincerely,

Lynn E. Hayes, D.V.M.  
Staff Veterinarian

LEH:gc

Enclosures

CC: Mr. Jimmy L. Tisdale  
✓ Mr. Tim Wilkins  
Mr. Jack Herring  
Mr. Ed Hackett  
Mr. James W. Pulliam, Jr.  
Mr. Harold W. Benson  
Dr. E. Frank Bowers  
Mr. James Jones  
Mr. Cleophas R. Cooke, Jr.  
Mr. Jerry J. Presley  
Mr. Bud Bristow  
Mr. Joe L. Herring